

Amendments to the Specification:

Please replace paragraph the paragraph at page 11, lines 3-13, with the following amended paragraph:

In the above-described hydrodynamic bearing according to the present invention, preferably, the lubricant is composed of one of oil and grease, and shows a kinematic viscosity of at least $4 \times 10^{-6} \text{ m}^2/\text{s}$ at 40 degrees centigrade. Such a lubricant remarkably reduces a rate of the intrusion of air bubble. For example, ~~ester oil or ester oil of neopentyl glycol~~ diester-based or polyolester-based lubricant is suitable for the above-described lubricant. The utilization of such a lubricant further effectively prevents leakage of lubricant due to the occurrence and swelling of air bubbles. Accordingly, the above-described hydrodynamic bearing according to the present invention has still higher reliability.

Please replace paragraph the paragraph beginning at page 14, line 25 to page 15, line 25, with the following amended paragraph:

FIG. 1 is a cross-sectional view of the above-described hydrodynamic bearing. Radial dynamic-pressure generating grooves are provided, for example, in two separated regions on the inner surface of the sleeve 1 (see broken lines shown in FIG. 1.) Of those two regions, let a first region 1A be one region in the flange 3 side and a second region 1B be another region in the base 1 side. Radial dynamic-pressure generating grooves may be provided on the side of the shaft 2 instead of or in addition to the inner surface of the ~~sleeve 4~~ sleeve 1. Radial dynamic-pressure generating grooves are, for example, herringbone-shaped grooves. Alternatively, radial dynamic-pressure generating grooves may be shaped into spirals. A hollow 1C is provided at the lower opening end of the inner surface of the ~~sleeve 4~~ sleeve 1. The flange 3 is placed inside the hollow 1C. Thrust dynamic-pressure generating grooves 3A and 3B are provided on upper and lower surfaces of the flange 3, respectively. Alternatively, thrust dynamic-pressure

generating grooves may be provided only on one side of the flange 3. Thrust dynamic-pressure generating grooves may be provided on one or both of a surface of the above-described hollow 1C of the ~~sleeve 4~~ sleeve 1 and the upper surface of the thrust plate 4, instead of or in addition to the surface of the flange 3. Thrust dynamic-pressure generating grooves are, for example, herringbone-shaped grooves. Alternatively, thrust dynamic-pressure generating grooves may be shaped into spirals. A lubricant 5 is preferably oil, or alternatively, may be grease. With the lubricant 5, gaps between the sleeve 1 (or the thrust plate 4) and the shaft 2 (or the flange 3) are filled.

Please replace paragraph the paragraph at page 21, lines 5-19, with the following amended paragraph:

In the above-described hydrodynamic bearing according to the embodiment of the present invention, preferably, the lubricant 5 shows a kinematic viscosity of at least $4 \times 10^{-6} \text{ m}^2/\text{s}$ at 40 degrees centigrade. When the kinematic viscosity of the lubricant 5 satisfies the condition, a rate of the intrusion of air bubble is remarkably reduced. This fact is revealed by the construction of the above-described hydrodynamic bearing from transparent members and the observation of the intrusion of the microbubbles into the lubricant 5 during the operation. Accordingly, ~~ester oil or ester oil of neopentyl-glycol~~ diester-based or polyolester-based lubricant, for example, is suitable for the lubricant 5. The utilization of such a lubricant 5 further effectively prevents leakage of the lubricant 5 due to the occurrence and swelling of air bubbles. Accordingly, the above-described hydrodynamic bearing according to the present invention has still higher reliability.

Please replace paragraph the paragraph beginning at 21, line 20 to page 23, line 3, with the following amended paragraph:

In the above-described hydrodynamic bearing according to the embodiment of the present invention, a similar plurality of hollows may be provided on the side of the shaft 2,

instead of or in addition to the inner surface of the sleeve 1. Furthermore, shapes other than the above-described plurality of the hollows 1C-1F may be added on the inner surface of the sleeve 1, the side of the shaft 2, or the surfaces of the flange 3. FIG. 3 is a cross-sectional view showing details of a variation of the hydrodynamic bearing according to the embodiment of the present invention. In FIG. 3, components similar to components shown in FIG. 2 are marked with the same reference symbols as the reference symbols shown in FIG. 2. A hollow 3C may be provided on the inner radius of the lower surface of the flange 3, as shown in FIG. 3. In that case, the gap under the flange 3 at the inner radii of the flange 3 and the vicinity J is broader than the gap over the thrust dynamic-pressure generating grooves 3A and their vicinity A. Accordingly, the sealing force of the lubricant 5 at the inner radii of the flange 3 and the vicinity J is weaker than the sealing force over the thrust dynamic-pressure generating grooves 3A and their vicinity A (see FIG. 4.) Therefore, the ~~lubricant 7~~ lubricant 5 in the gap under the flange 3 is concentrated particularly over the thrust dynamic-pressure generating grooves 3A and their vicinity A, thus keeping reliably covering the whole of the thrust dynamic-pressure generating grooves 3A. In addition, let H be a distance in the radial direction of the shaft 2 in the gap H between the hollow 1F at the upper opening end of the sleeve 1 and the shaft 2, and J be a distance in the axial direction of the shaft 2 in the gap J at the inner radii of the flange 3 and the vicinity, then an inequality $J < H$ holds. For example, the above-described distance J in the gap J at the inner radii of the flange 3 and the vicinity may be set in the 50-300 μ m range. Then, the sealing force of the lubricant 5 at the inner radii of the flange 3 and the vicinity J is stronger than the sealing force in the hollow 1F at the upper opening end of the sleeve 1 and its vicinity H (see FIG. 4.) As a result, the microbubbles hardly accumulate into the inner radii of the flange 3 and the vicinity J.